

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (original): A flip-chip-type gallium nitride compound semiconductor light-emitting device comprising a substrate, an n-type semiconductor layer, a light-emitting layer, a p-type semiconductor layer, a negative electrode provided on the n-type semiconductor layer, and a positive electrode provided on the p-type semiconductor layer, the layers being successively provided atop the substrate in this order and being composed of a gallium nitride compound semiconductor, wherein the positive electrode has a three-layer structure comprising an ohmic electrode layer which is in contact with the p-type semiconductor layer, an adhesion layer which is provided on the ohmic electrode layer, and a bonding pad layer provided on the adhesion layer, each melting point of these layers being lowered in this order.

2. (original): A flip-chip-type gallium nitride compound semiconductor light-emitting device according to claim 1, wherein the ohmic electrode layer is composed of a metal selected from the group consisting of Rh, Pt and Ir, or composed of an alloy containing at least one of these metals.

3. (original): A flip-chip-type gallium nitride compound semiconductor light-emitting device according to claim 2, wherein the ohmic electrode layer is composed of Rh.

4. (currently amended): A flip-chip-type gallium nitride compound semiconductor light-emitting device according to ~~any one of claims 1 to 3~~claim 1, wherein the adhesion layer is composed of Ti or Cr.

5. (original): A flip-chip-type gallium nitride compound semiconductor light-emitting device according to claim 4, wherein the adhesion layer is composed of Ti.

6. (currently amended): A flip-chip-type gallium nitride compound semiconductor light-emitting device according to ~~any one of claims 1 to 5~~claim 1, wherein the bonding pad layer is composed of a metal selected from the group consisting of gold, aluminum, nickel, and copper, or composed of an alloy containing at least one of these metals.

7. (currently amended): A flip-chip-type gallium nitride compound semiconductor light-emitting device according to ~~any one of claims 1 to 6~~claim 1, wherein the adhesion layer has a thickness of 10 Å to 1,000 Å.

8. (original): A flip-chip-type gallium nitride compound semiconductor light-emitting device according to claim 7, wherein the adhesion layer has a thickness of 10 Å to 100 Å.

9. (currently amended): A flip-chip-type gallium nitride compound semiconductor light-emitting device according to ~~any one of claims 1 to 8~~claim 1, wherein the ohmic electrode layer has a thickness of 100 Å to 3,000 Å.

10. (original): A flip-chip-type gallium nitride compound semiconductor light-emitting device according to claim 9, wherein the ohmic electrode layer has a thickness of 500 Å to 2,000 Å.

11. (currently amended): A flip-chip-type gallium nitride compound semiconductor light-emitting device according to ~~any one of claims 1 to 10~~claim 1, wherein the bonding pad layer has a thickness of at least 1,000 Å.

12. (original): A flip-chip-type gallium nitride compound semiconductor light-emitting device according to claim 11, wherein the bonding pad layer has a thickness of 3,000 Å to 5,000 Å.

13. (currently amended): A flip-chip-type gallium nitride compound semiconductor light-emitting device according to ~~any one of claims 6 to 12~~claim 6, wherein the bonding pad layer is composed of gold.

14. (original): A positive electrode for use in a gallium nitride compound semiconductor light-emitting device, wherein the positive electrode has a three-layer structure

comprising an ohmic electrode layer which is brought into contact with a p-type semiconductor layer of the compound semiconductor light-emitting device, an adhesion layer which is provided on the ohmic electrode layer, and a bonding pad layer provided on the adhesion layer, each melting point of these layers being lowered in this order.

15. (original): A positive electrode for use in gallium nitride compound semiconductor light-emitting device according to claim 14, wherein the ohmic electrode layer is composed of a metal selected from the group consisting of Rh, Pt and Ir, or composed of an alloy containing at least one of these metals.

16. (original): A positive electrode for use in gallium nitride compound semiconductor light-emitting device according to claim 15, wherein the ohmic electrode layer is composed of Rh.

17. (currently amended): A positive electrode for use in gallium nitride compound semiconductor light-emitting device according to ~~any one of claims 14 to 16~~claim 14, wherein the adhesion layer is composed of Ti or Cr.

18. (original): A positive electrode for use in gallium nitride compound semiconductor light-emitting device according to claim 17, wherein the adhesion layer is composed of Ti.

Preliminary Amendment
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19. (currently amended): A positive electrode for use in gallium nitride compound semiconductor light-emitting device according to ~~any one of claims 14 to 18~~claim 14, wherein the bonding pad layer is composed of a metal selected from the group consisting of gold, aluminum, nickel, and copper, or composed of an alloy containing at least one of these metals.

20. (currently amended): A positive electrode for use in gallium nitride compound semiconductor light-emitting device according to ~~any one of claims 14 to 19~~claim 14, wherein the adhesion layer has a thickness of 10 Å to 100 Å.

21. (original): A positive electrode for use in a gallium nitride compound semiconductor light-emitting device according to claim 20, wherein the adhesion layer has a thickness of 30 Å to 50 Å.

22. (currently amended): A light-emitting diode comprising a flip-chip-type gallium nitride compound semiconductor light-emitting device according to ~~any one of claims 1 to 13~~claim 1.

23. (currently amended): A lamp comprising a flip-chip-type gallium nitride compound semiconductor light-emitting device according to ~~any one of claims 1 to 13~~claim 1.